UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 05 2018

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Article Number: 7016 3560 0000 4262 8703

Ralph W. Bathelt, EHS Manager
Alcoa – Massena East Plant
194 County Route 45
Massena, NY 13662

Re: Alcoa East Plant
EPA Inspection August 29, 2017
SPDES Permit No: NY0000132

Dear Mr. Bathelt:

Representatives from the United States Environmental Protection Agency (EPA) Region 2 and EPA Headquarters conducted a Compliance Evaluation Inspection ("CEI") at the subject Facility on August 29, 2017. The purpose of the CEI was to evaluate compliance with your New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Permit. The subject facility has Permit coverage under an individual SPDES Permit NY0000132.

Within forty-five (45) calendar days of receipt of this letter please submit, a written response to the CEI Report with the actions (including a schedule) that are being taken or will be taken to address each of the Potential Non-Compliance Items as well as the Areas of Concern (items that should be improved for better operations of the facility), to EPA and NYSDEC (See Addresses Below).

Justine Modigliani, P.E., Chief, Compliance Section
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency, Region 2
290 Broadway, 20th Floor
New York, New York 10007

Joseph DiMura, P.E., Director
Bureau of Water Compliance Programs
Division of Water, NYSDEC
625 Broadway
Albany, New York 12233-3506

Should you have any questions regarding this letter, feel free to contact me at (212) 637-4268 or contact Mr. Murray Lantner, P.E. of my staff at (212) 637-3976 (lantner.murray@epa.gov).

Sincerely,

Justine Modigliani, P.E., Chief
Compliance Section

Enclosure – Compliance Evaluation Inspection Report

cc: David Rarick, NYSDEC Region 6, via email, david.rarick@dec.ny.gov
Joseph DiMura, P.E., Director, NYSDEC Bureau of Water Compliance Programs

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 [ ] 2 [5]	3 [NY0000013211]	12 [170829] 17	18 [C]	19 [R]	20 [2]

Remarks

21 [ ] 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 [1] 69	70 [ ]	71 [ ]	72 [ ]	73 [ ] 74 75 [ ] 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

Alcoa East Plant, St. Lawrence Reduction Plant, 194 County Road 45, Massena NY, 13662

Entry Time/Date	Permit Effective Date
8/29/17, 9:30AM	6/1/14
Exit Time/Date	**Permit Expiration Date**
2:30 PM	5/31/19

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Ralph W. Bathelt, EHS Manager, IPAM, RMC LLC, (315) 764-6336 (office) (315) 250-4780 Cell, ralph.bathelt@alcoa.co
Dinora Grow, dinora.grow@alcoa.com

Other Facility Data *(e.g., SIC NAICS, and other descriptive information)*

Dinora Grow - Dinora.grow@alcoa.com

Lyle Kingsley - Sampling Tech.
Ralph W. Bathelt, EHS Manager, IPAM, RMC, Alcoa East Plant, 194 County Road 45, Massena NY, 13662

Name, Address of Responsible Official/Title/Phone and Fax Number

Robert J. Lenney, Location Mgr.
Reynolds Metal, Massena East Plant,
P.O. Box 500, Massena, NY 13662

Contacted ☐ Yes ☑ No

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

☑ Permit	☑ Self-Monitoring Program	☐ Pretreatment	☐ MS4
☑ **Records/Reports**	☑ Compliance Schedules	☐ Pollution Prevention	
☑ Facility Site Review	☑ Laboratory	☑ Storm Water	
☑ Effluent/Receiving Waters	☑ Operations & Maintenance	☐ Combined Sewer Overflow	
☑ Flow Measurement	☑ Sludge Handling/Disposal	☐ Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
C 0 0 1 5	Frequency of Sampling (at Outfall 005)

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Murray Lantner, Env. Eng.	EPA/DECA-WCB (212) 637-3976	2/14/18
Signature of Management Q A Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Justine Modigliani, P.E Chief Compliance Section	**EPA/DECA-WCB/(212)-637-4268**	3/2/18

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit *type for U=unpermitted*, G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	I	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge - Biosolids	{	Storm Water-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
F	Pretreatment (Follow-up)	$	Combined Sewer Overflow-Non-Sampling	:	Storm Water-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Storm Water-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling	<	Storm Water-MS4-Sampling
J	Complaints	\	CAFO-Sampling	-	Storm Water-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Storm Water-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspection		
R	Reconnaissance	5	IU Sampling Inspection with Pretreatment		
S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A — State (Contractor)
B — EPA (Contractor)
E — Corps of Engineers
J — Joint EPA/State Inspectors—EPA Lead
L — Local Health Department (State)
N — NEIC Inspectors
O — Other Inspectors, Federal/EPA (Specify in Remarks columns)
P — Other Inspectors, State (Specify in Remarks columns)
R — EPA Regional Inspector
S — State Inspector
T — Joint State/EPA Inspectors—State lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 — Industrial. Other than municipal, agricultural, and Federal facilities.
3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 — Federal. Facilities identified as Federal by the EPA Regional Office.
5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2, DECA-WCB
20th Floor, 290 Broadway, New York, NY 10007

Compliance Evaluation Inspection – Alcoa East Plant, Massena NY	
Inspection Date: August 29, 2017 **Inspection Time:** 9:30AM – 2:30 PM	**EPA Representatives:** Murray Lantner, P.E. Environmental Engineer, USEPA Region 2, (212) 637-3976, lantner.murray@epa.gov Pete Bahor, Enforcement Officer, USEPA-HQ, 202 564-7029, bahor.peter@epa.gov
On-Site Alcoa Representatives: Ralph W. Bathelt, EHS Manager, IPAM, RMC LLC, St. Lawrence Reduction Plant, 194 County Road 45, Massena NY, 13662, (315) 764-6336 (office) (315) 250-4780 Cell, ralph.bathelt@alcoa.com Dinora Grow – Environmental Engineer - Dinora.grow@alcoa.com Lyle Kingsley – Sampling Tech.	
Site Information: Latitude/Longitude.: 44.982332°, -74.751264° Alcoa-East Plant, 194 County Road 45, Massena, NY 13662 **SPDES Permit** NY0000132	

I. INTRODUCTION

On August 29, 2017, representatives of the United States Environmental Protection Agency (USEPA) Region 2 and EPA Headquarters conducted a Compliance Evaluation Inspection (CEI or Inspection) at Alcoa's East Plant in Massena, New York. The objective of this inspection was to assess compliance with the NYSDEC Individual State Pollutant Discharge Eliminating System (SPDES) Permit NY0000132 for its discharges to the St. Lawrence River and Raquette River.

The former aluminum smelting facility that had produced aluminum ingots or sows had been shut down and was in the process of being dismantled. Based upon the Best Management Practices (BMP) Plan, the aluminum smelting process (potlines) had been shutdown in March 2014. Plant personnel said that aluminum finishing operations were not conducted at this facility. Sanitary wastewater is treated on-site and at the time of the inspection sanitary flows were approximately 2,000 gpd. Mr. Bathelt has been at this Alcoa facility since 2016. Environmental staff had been rearranged due to the split between Alcoa and Arconic. The

inspection consisted of some records review, lab review, facility and outfall inspection. The facility also provides potable water to a nearby federal facility.

FINDINGS & OBSERVATIONS

Upon entering the site, EPA inspectors Murray Lantner and Peter Bahor presented credentials to Facility Representatives including Mr. Ralph Bathelt.

A. Potential Noncompliance Items

1. Based on an August 31, 2017, email from Mr. Bathelt, flow rate at Outfall 005 (a 24" outfall pipe) is estimated by timing the filling a 1 liter wide mouth bottle. However, this flow monitoring method is not accurate in monitoring flows through the outfall pipe that are wider than the wide mouth bottle – see photo 836 in Attachment 1A. The permittee needs to establish a means of estimating the instantaneous flow rate that accounts for the full flow through the 24" discharge pipe. Special Condition H of the Permit states that monitoring of outfalls 005, 008 and 010 is not require if the outfall's flow rate is less than 5 gpm. Facility representatives stated that if it takes more than 3 seconds to fill a 1 liter bottle, than no sample is taken. Based upon a review of the ECHO database, Alcoa reported No Discharge on its DMR for Flow Rate at Outfall 005 on Jan, Feb, July and September 2015, January, May, July, August, September, October, and November 2016, and September 2017. Alcoa must ensure that it is able to monitor the flow rate for the entire width of flow so that monitoring and reporting of No Discharge in accordance with Special Condition H is accurate.

B. Areas of Concern

1. Oil and Grease and PCB grab samples at Outfall 001 are collected from the composite sample tube not a direct grab. Oil and Grease samples under EPA Method 1664 are to be collected directly into a glass sample container. EPA Method 608 Part 9.1 for PCB sampling specifies that Automatic sampling equipment must be as free as possible of Tygon tubing and other potential sources of contamination.

2. The Permit does not contain any requirement for impingement/entrainment pursuant to Section 316(b) of the CWA. Any permits for future operations at the facility should consider requirements to comply CWA Section 316(b).

3. As shown in photos DSCN4822 (822) and 823 there was metal scrap material on-site that was said to be awaiting recycling/disposal. The material was under contract to be removed, but facility representatives indicated that lower scrap metal prices had impacted the financial viability of building demolition and scrap removal. Explain the status of the removal of the scrap material.

4. As shown in photos 824 there is vegetation growing at the 003 influent bar screen. Based on an August 31, 2017 email and photo from Mr. Bethalt the bar screen was cleaned (See Attachment 3). Please ensure to conduct proper operation and maintenance of this area.

5. As shown in photo 845 and 846 there was vegetation growing through 001 pond liner. Based on an email and photo from Mr. Bathet dated on October 6, 2017 the pond liner was patched (See Attachment 2).

6. As shown in photo 844 the grit chamber had material settled at the bottom and appeared to be in need of cleaning. Additionally, following the inspection, the facility documented that a 3' walking path was cleared to access the 001 grit chamber (Attachment 9).

7. Review of the lab spreadsheets for Fecal Coliform, CBOD and other parameters at Outfall 003 for June 2017 did not provide the date and time for analysis. Therefore it was not possible from this data to determine if the sample was analyzed within holding times. Please ensure that the time and date of analysis in addition to the sampling time is provided.

8. There is a note in the SPDES checklist for Outfall 010 on June 13, 2017 that settleable solids was not sampled or analyzed (See Attachment 5). And that the Flume requires maintenance (cleaning) will sample on Thursday (re-log). The Permit requires that representative weekly samples be conducted at Outfall 010 for Settleable Solids. Please explain why the June 13, 2017 sampling for settleable solids was not conducted

9. As shown in Attachment 6, for Outfall 001 on June 13, 2017 no grab or composite sample was taken. The note said low flow, redone. Note that the low flow <5 gpm flow under Special Condition H applies to outfalls 005, 008, and 010 and not Outfall 001.

10. As shown in Attachment 7 the SPDES Checklist for Sampling for August 29, 2017 at Outfall 005 recorded no flow at 7:50AM. During this August 29, 2017 there was a discharge from Outfall 005 in the early afternoon.

C. <u>Other Findings</u>

1. Outfall 01A - The discharge from the treatment plant associated with the pot line scrubbers and other wastewaters has been shutdown and is no longer discharging.

2. Spent pot liners were said to be disposed of as hazardous waste.

3. Outfall 003 – 90 degree V Notch Weir, at 0.371 feet and reading 94gpm. The flow height and flow rate are consistent with flow tables for a 90 degree V Notch Weir. The meter was last calibrated on September 4, 2016 and was said to be calibrated annually.

4. As shown in Photos 829 and 830 there is a white/reddish Pipe in the Outfall 02E system. In a follow up email dated October 6, 2017, Mr. Bathelt explained that this pipe was part of the former Outfall 002 system and discharged into the concrete vault which in turn discharged via the pipe on the right side of the vault. The exit pipe on the right side of the vault was capped and the white pipe was plumbed to a sump pump in the associated 002 building which pumps any water received to the 002 impoundment which in turn flows to the Outfall 003 treatment system.

5. Alcoa has a Best Management Practices (BMP) Plan for the facility and there were records of monthly BMP inspections for the period January 2015 to July 2017 in the PDF document provided to EPA following the inspection.

6. As shown in photos 839 to 841 Outfall 001 had a discharge clear and free of foams. The flow rate at the time of the inspection was 62 gpm and the height of 0.065'. There was a teflon sampling line for the Outfall 001 sampler. This flow rate is consistent with the flow tables for this rectangular weir. Plant personnel explained that the grit chamber at Outfall 001 is cleaned once per year.

7. The facility emailed its PCB Management Plan (April 2017) and the October 2017Annual Status Report required under Part C of the PCB Management Plan in the Permit was emailed to EPA as well. The Annual Status Report contained the required elements under the SPDES Permit Part C of the PCB Minimization Program.

8. The facility was using a NALCO CL50 scale/corrosion inhibitor. The NYSDEC issued a separate approval to authorize the use of this chemical (See Attachment 8) dated February 7, 2014.

CLOSING

A closing conference was held with facility representatives explaining the EPA's findings identified at the time of the CEI and any additional questions were answered at that time.

II. ATTACHMENTS

Attachment 1A – EPA Photographs (M. Lantner)
Attachment 1B – EPA Photographs (Pete Bahor)
Attachment 2 – Alcoa Photo of Patched Pond Liner sent to EPA on Oct. 6, 2017
Attachment 3 – 8/31/17 photo of cleaned 003 bar screen
Attachment 4 – Description of Flow Meters
Attachment 5 – June 20, 2017 SPDES Checklist for Sampling for Outfall 010.
Attachment 6 - June 13, 2017 SPDES Checklist for Sampling for Outfall 001.
Attachment 7 – August 29, 2017 SPDES Checklist for Sampling for Outfall 005.
Attachment 8 – February 2014 DEC approval of NALCO CL40 Water Treatment Chemical

Att. 1A - Alcoa East Plant, Massena, NY
August 29, 2017
Unedited Digital Photos Taken by
Murray Lantner, EPA Region 2, DECA-WCB
Nikon Coolpix P510 Digital Camera

DSCN4822 – scrap material from facility demolition awaiting disposal

DSCN4823 - scrap material from facility demolition awaiting disposal

DSCN4824 – Bar Screen Inlet for Outfall 003 vegetation growing at bar screen

DSCN4825 - Inlet to the outfall 003 treatment

DSCN4826 – Sludge Drying Beds for the outfall 003 treatment system

DSCN4827 - Sludge Drying Beds for the outfall 003 treatment system

DSCN4828 - Sludge Drying Beds for the outfall 003 treatment system

DSCN4829 – Outfall 02E outfall no flow – flanged off, but see white/red pipe I back of the 02E Outfall System

DSCN4830 - Outfall 02E outfall no flow – flanged off, but see white/red pipe I back of the 02E Outfall System

DSCN4831 – sign for Outfall 010

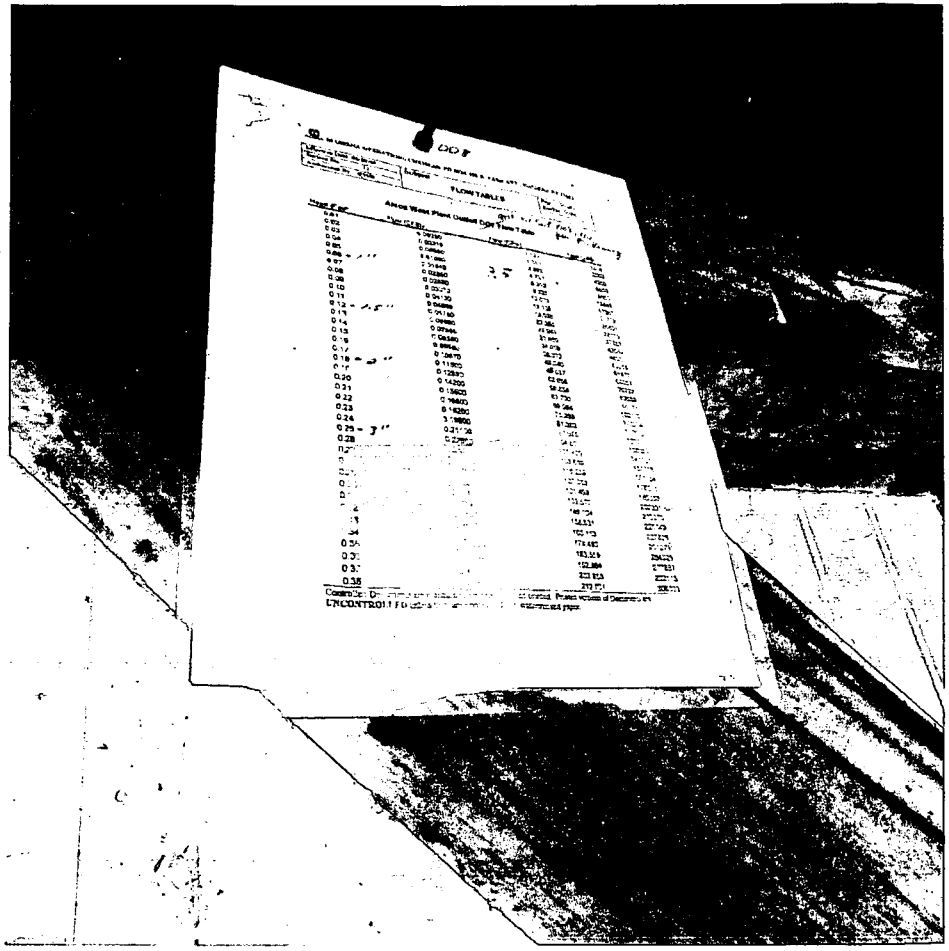
DSCN4832 – Outfall 010 had a flow but no discharge would be reported at this flow level

DSCN4833 - Outfall 010 had a flow but no discharge would be reported at this flow level

DSCN4834 – Sign for Outfall 008

DSCN4835 – Outfall 008 trickle (free of foams and sheens) report No Dischrge

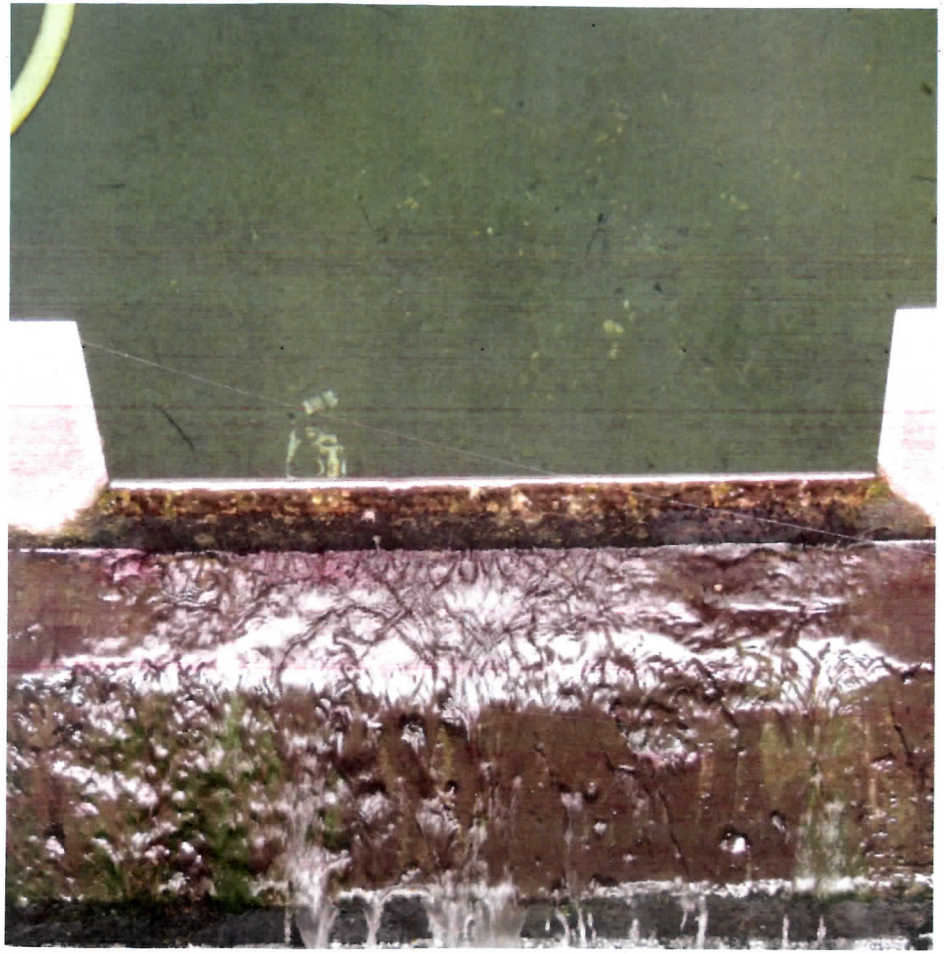
DSCN4836 – Outfall 005 flowing



DSCN4837 – flow chart at Outfall 005 that is not applicable to 005 (says 008).

DSCN4838 – Sign for Outfall 005

DSCN4839 – Sign for Outfall 001



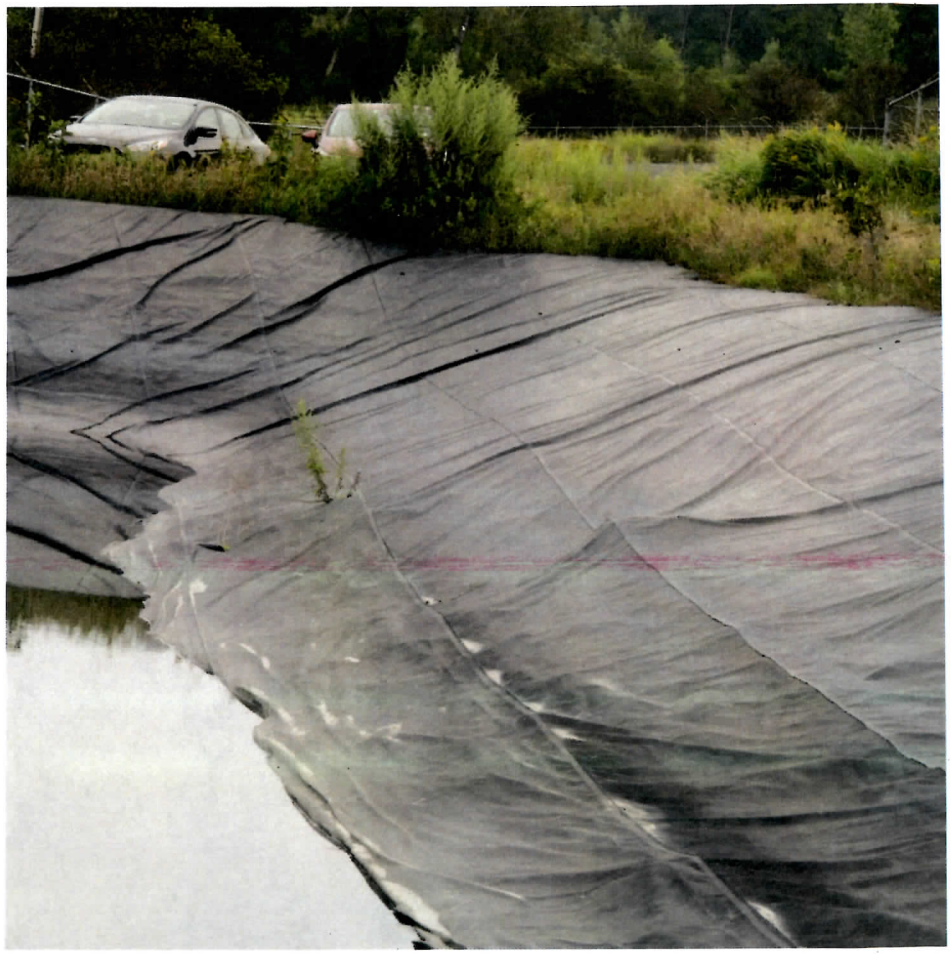
DSCN4840 – Outfall 001 discharge 2.5' rectangular weir with end contractions

DSCN4841 – composite sampler at Outfall 001.

DSCN4842 Composite sampler jars for Outfall 001 – note that here are both plastic and glass jars

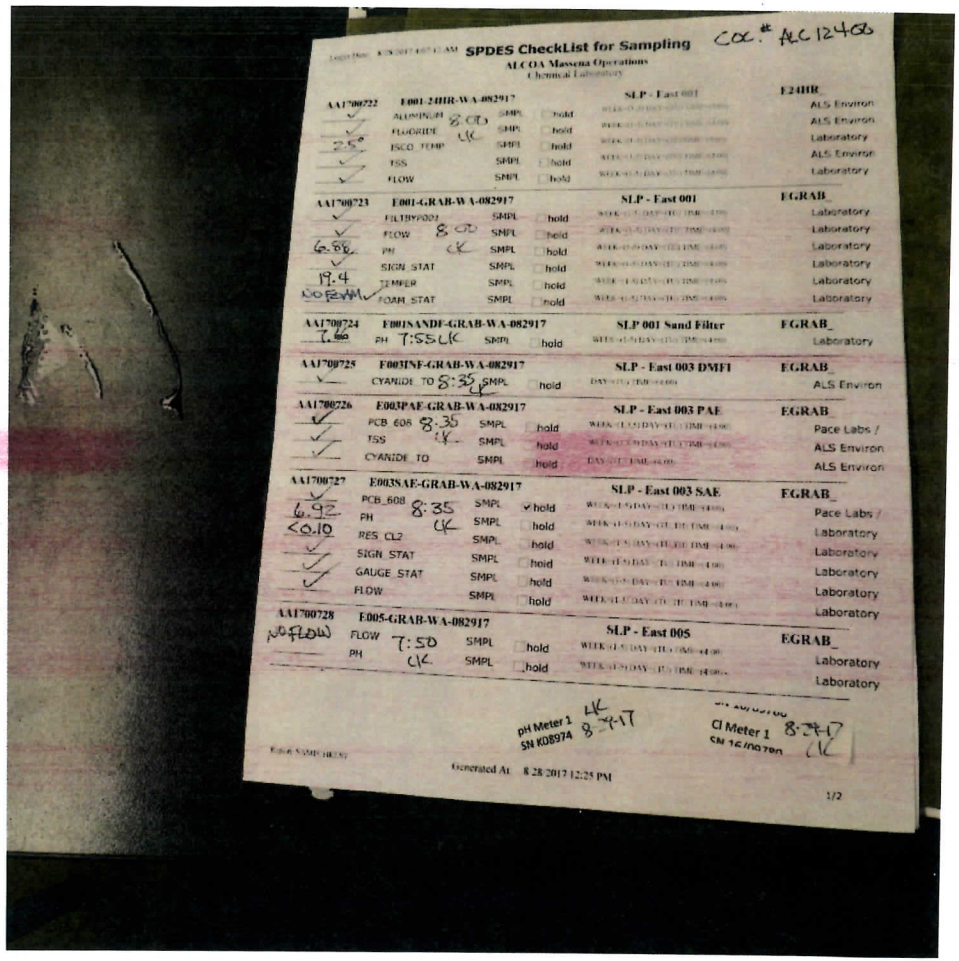
DSCN4843 – sand filter for Outfall 001

DSCN4844 – some buildup up of material in channel.grit chamber leading to pond system

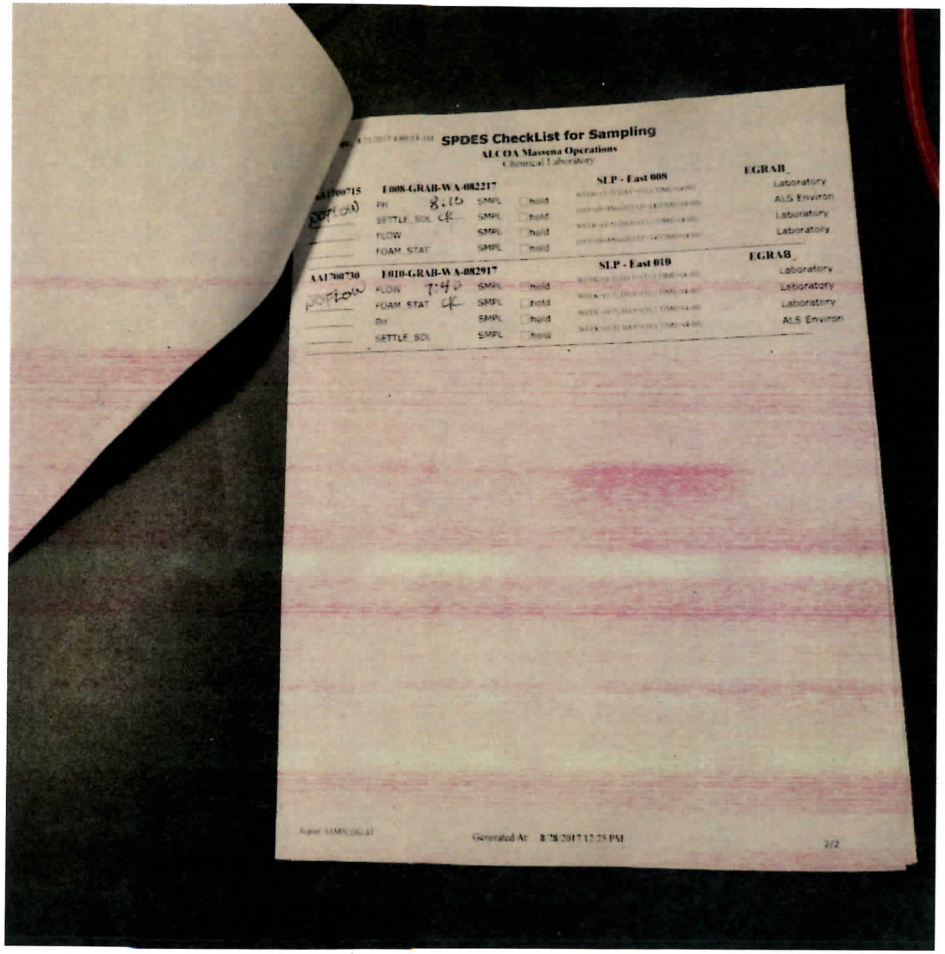


DSCN4845 – Vegetation growing through 001 pond liner.

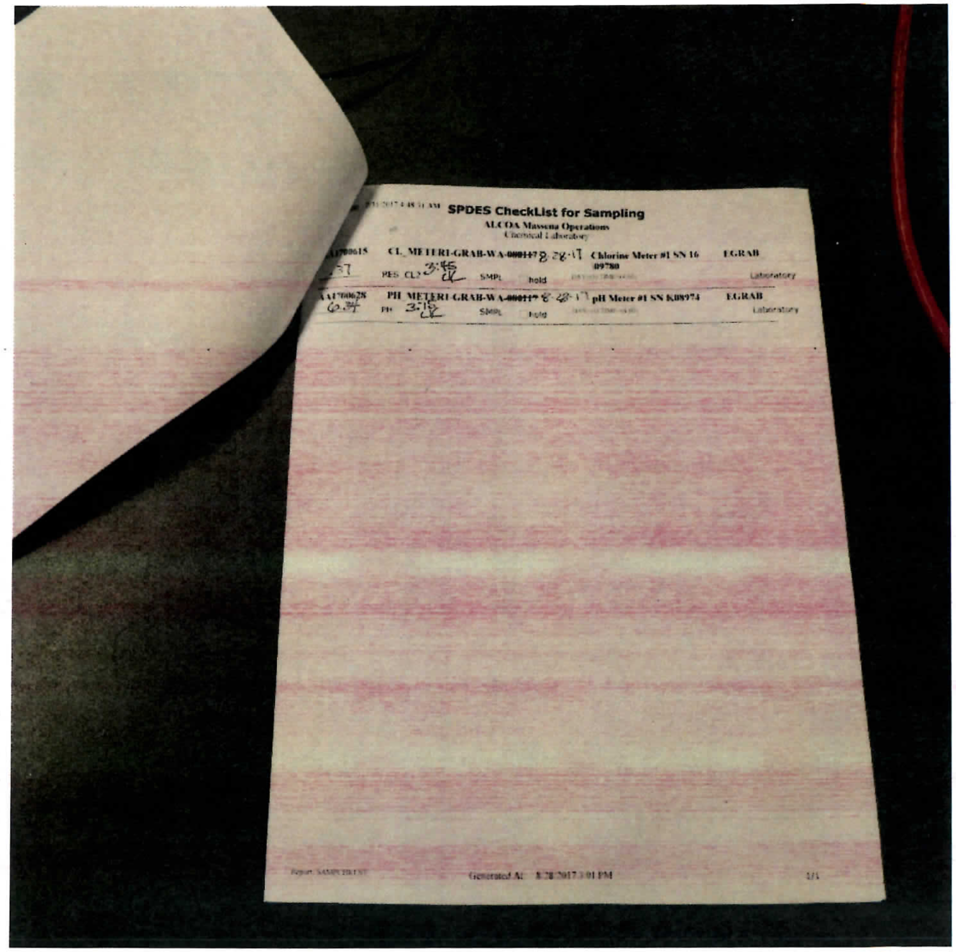
DSCN4846 – Vegetation growing through 001 Pond Liner



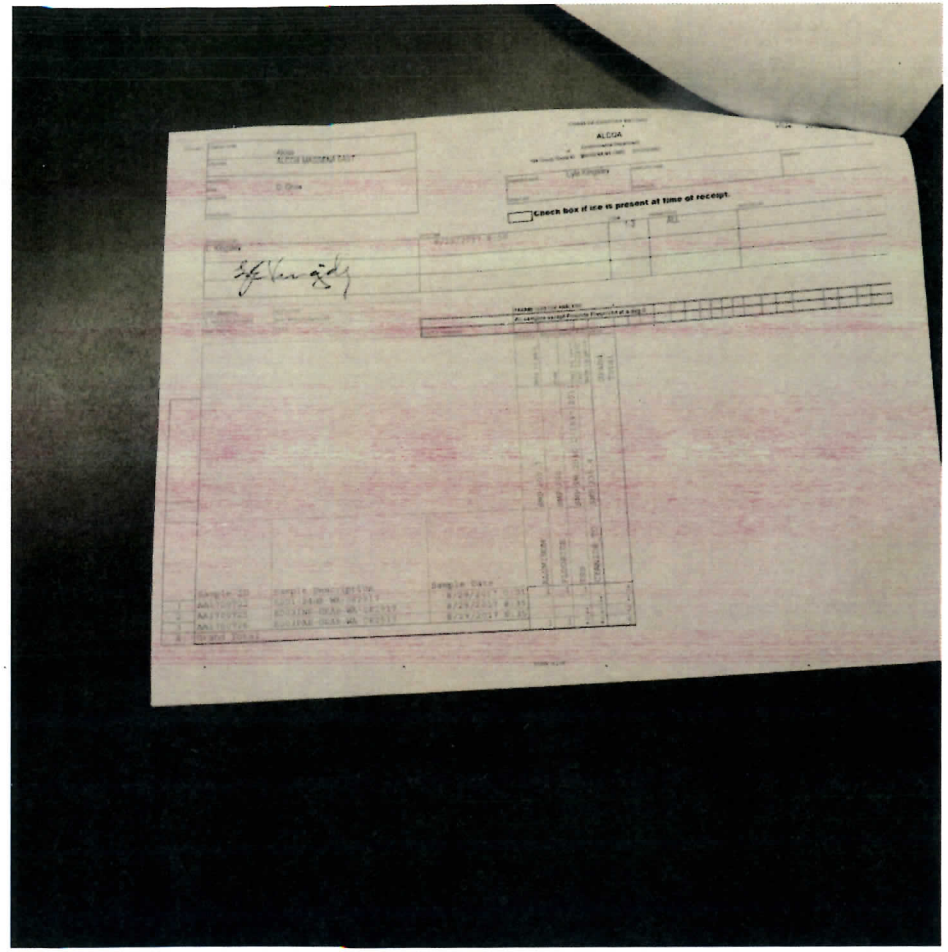
DSCN4847



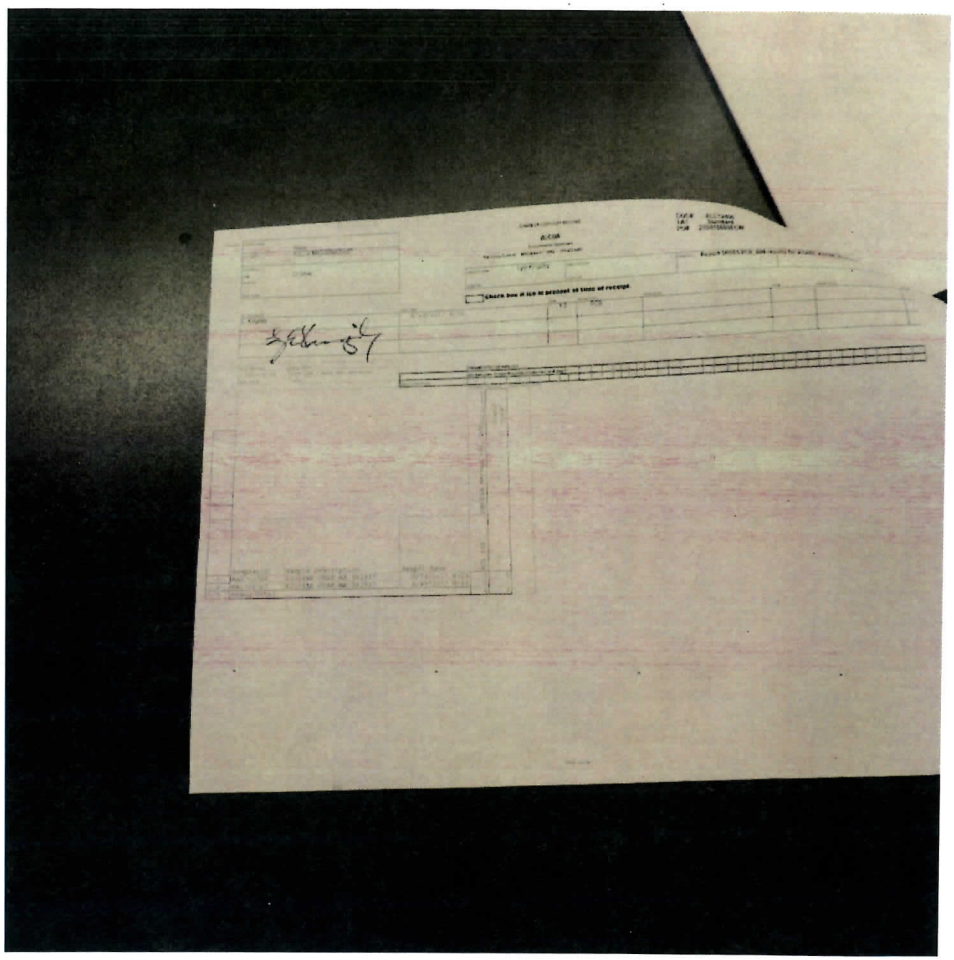
DSCN4848 - 8/29/17 SPDES Checklist for Sampling



DSCN4849 8/29/17 SPDES Checklist for Sampling



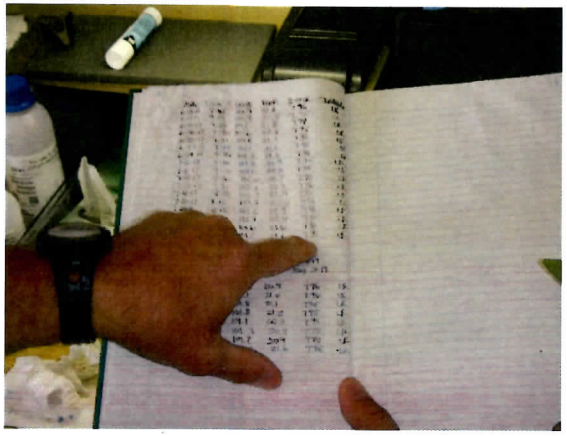
DSCN4850 – Chain of Custody Sheet



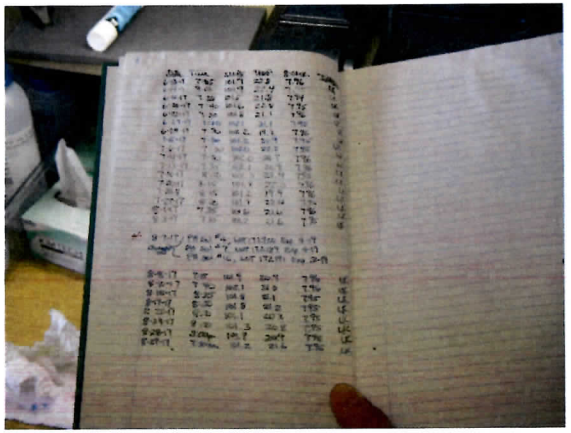
DSCN4851 - Chain of Custody Sheet

Att. 1B - Alcoa East, Massena NY, August 29, 2017
Unedited Digital Photos Taken By Pete Bahor
USEPA HQ

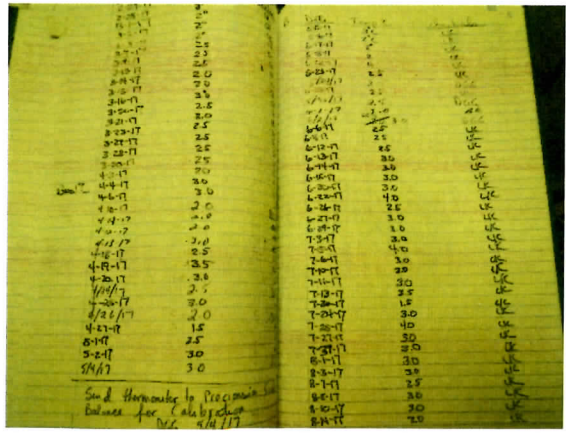
Alcoa East Plant – DSCN0090
Sampler/sampling bottles



Alcoa East – sampling notebook DSCN0091



Alcoa East – sampling notebook DSCN0092



Alcoa East – sampling notebook DSCN0093

Alcoa East – scrap metal DSCN0094

Alcoa East – scrap metal DSCN0095

DSCN0096

Alcoa East – scrap metal DSCN0097

DSCN0098

A Sampling Point - DSCN0099

DSCN0100

- DSCN0101

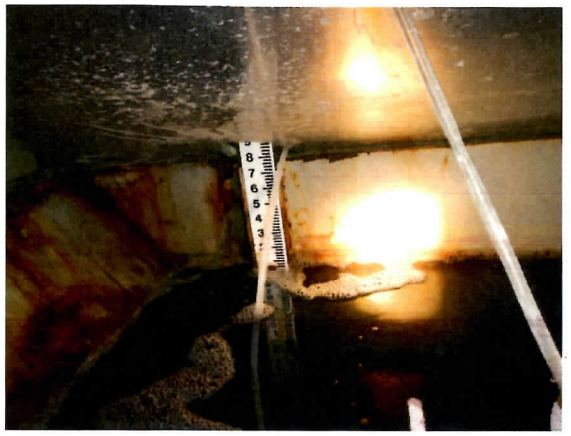
DSCN0102

Outfall 003 Flow Recorder - DSCN0103

003 Composite Sampler - DSCN0104

003 Sample Location weir DSCN0105

003 Sample Location weir DSCN0106



003 Sample Location weir DSCN0107

003 Sample Location weir DSCN0108

003 Sample Location weir DSCN0109

Overgrown bar screen 003 DSCN0110

Overgrown Influent Channel 003 Bar screen DSCN0111

DSCN0112

DSCN0113

Distance picture looking westerly - DSCN0114

003 Drying Beds - DSCN0115

003 Drying Bed - DSCN0116

West facing -- conveyor structure - DSCN0117

Scrap Metal - DSCN0118

Scrap Metal - DSCN0119

Scrap Metal - DSCN0120

DSCN0121

Ground Staining - DSCN0122

Detention Basin - DSCN0123

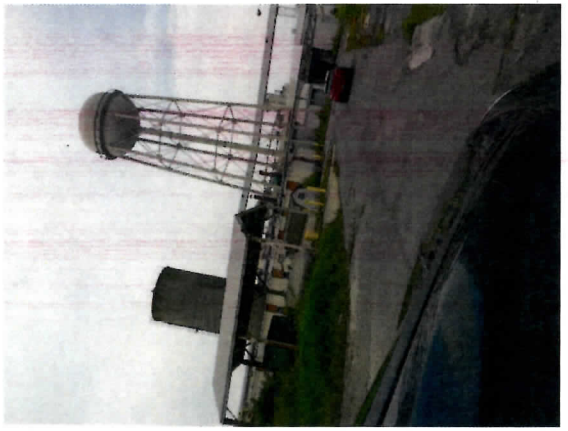
Detention Basin -DSCN0124

Scrap Metal - DSCN0125

Scrap Metal - DSCN0126

Water Tower - DSCN0127

Water Tower - DSCN0128



Water Tower - DSCN0129

Hazardous Material Response Unit Truck - DSCN0130

Fuel Tanks Covered and Secondary Containment - DSCN0131

Fueling Secondary Containment - DSCN0132

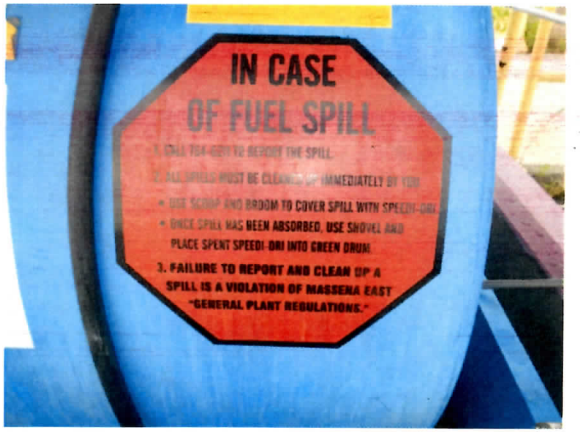
Spill Prevention Device and Secondary Containment - DSCN0133

Fuel Secondary Containment - DSCN0134

Spill Containers - DSCN0135

Fueling Tank Gauge - DSCN0136

Fuel Tank and Guage- DSCN0137

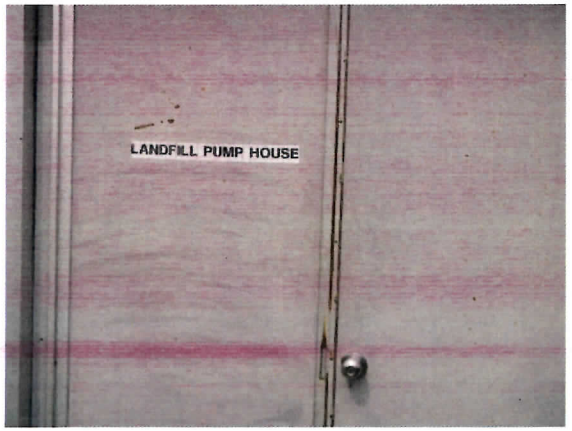


Fuel Tank labeling - DSCN0138

Outfall No. 010 - DSCN0139

Storm Water Outfall 010- DSCN0140

Stormwater Outfall 010 - DSCN0141



Landfill Pump House - DSCN0142

Pump - DSCN0143

From outside Fenceline - DSCN0144

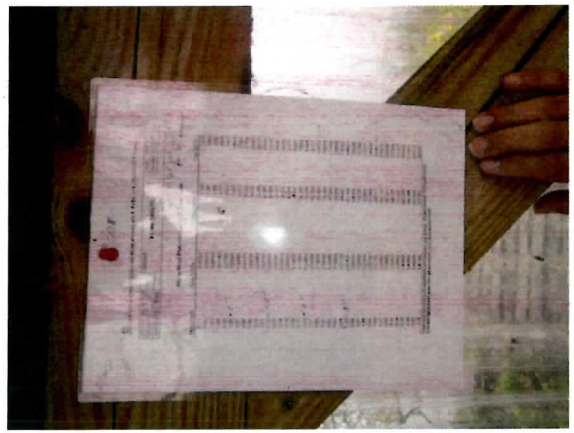
Storm water outfall - DSCN0145

Sand bed – Outfall 001 - DSCN0146

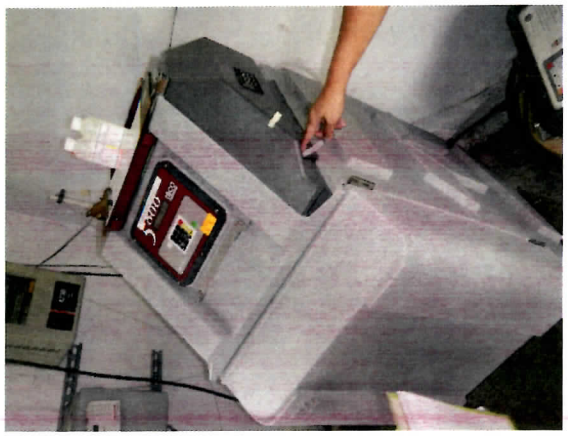
Sand bed to Outfall 001 - DSCN0147

Outfall 005- DSCN0148

Monitoring Steps enclosure - DSCN0149

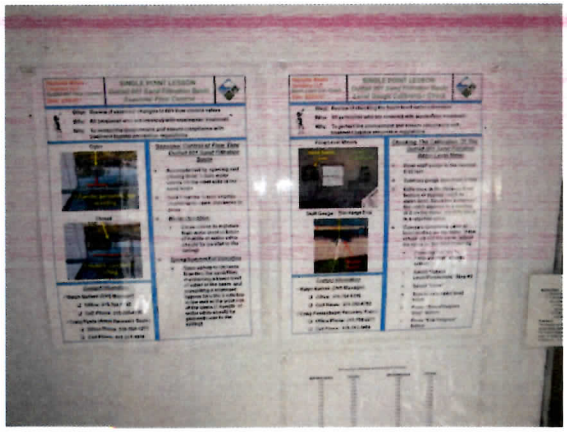


Monitoring Chart for Outfall 008 at Outfall 005 - DSCN0150



001 Composite Sampler- DSCN0151

001 Composite Sampler- DSCN0152



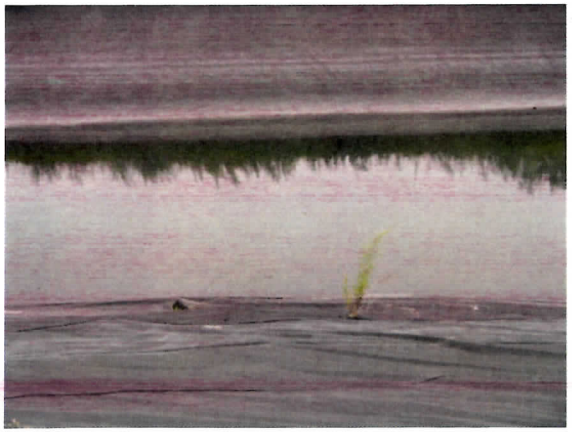
Outfall 001 instruction sheets - DSCN0153

Confined Space Signage - DSCN0154

Sand Bed - DSCN0155

Frog on Liner (many dead frogs) - DSCN0156

Detention Basin - DSCN0157



001 Basin vegetation growing through liner- DSCN0158

Detention Pond - DSCN0159

ATTTACHMENT 2 – Patched 001 Basin Liner (emailed by Alcoa to EPA on 10/6/17)

ATTACHMENT 3 – Photo of Outfall 003 Bar Screen cleaned (Sent 8/31/17 email from Alcoa to EPA)

ATTACHMENT 4

ALCOA **MASSENA OPERATIONS CHEMLAB, PO BOX 150, E. PARK AVE., MASSENA NY 13662**

Effective Date: 05/01/05	SPDES SAMPLING & DMR REPORTING PLAN	Page: 1 of 80
Section No.: 13	Subject:	Revised: 05/05/05
Approved By: NMLP	FLOW CHARTS	Revised By: NMLP

Flow Charts

The Flow Chart Book is a manual containing the data necessary to calculate the flows in GPD at each of the weirs and flumes. The manual also contains weir and Parshall flume dimensions.

Weir and Flume Locations:

1. Alcoa West Plant Outfall 001(9 ft rectangular weir w/end contractions)
2. Alcoa West Plant Outfall 003 (1.5 ft Parshall flume)
3. Alcoa West Plant Outfall 004 (1.5 ft Cipolletti weir)
4. Alcoa West Plant Outfall 007 (4.5 ft H flume)
5. Alcoa West Plant Outfall 008 (21" Palmer-Bowlus flume)
6. Alcoa West Plant Outfall 01A (1.5 ft Cipolletti weir)
7. Alcoa West Plant Outfall 01D (90° V-notch weir)
8. Alcoa West Plant Outfall 01E (1.0 ft Parshall flume)
9. Alcoa West Plant Outfall 01G-131 (90° V-notch weir)
10. Alcoa West Plant Outfall 01G-140 (90° V-notch weir)
11. Alcoa West Plant Outfall 01H (90° V-notch weir)
12. Alcoa West Plant Outfall 01I (24" Palmer-Bowlus flume)
13. Alcoa East Plant Outfall 001 (2.5 ft rectangular weir w/end contractions)
14. Alcoa East Plant Outfall 002 (3.0 ft rectangular weir w/end contractions)
15. Alcoa East Plant Outfall 003 (90° V-notch weir)
16. Alcoa East Plant Outfall 01A (22.5° V-notch weir)
17. Alcoa East Plant Outfall 01B (22.5° V-notch weir)
18. Alcoa East Plant Outfall 005 (24" ID pipe)
19. Alcoa East Plant Outfall 008 (4.5 ft. H flume)
20. Alcoa East Plant Outfall 010 (4.5 ft. H flume)

6/12/2017 4:48:41 AM

SPDES CheckList for Sampling

Att: 5

ALCOA Massena Operations
Chemical Laboratory

AA1700480	**E005-GRAB-WA-061317**			**SLP - East 005**		**EGRAB_**
NO FLOW	FLOW 8:30	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	FOAM_STAT 4C	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)		Laboratory
	PH	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	SETTLE_SOL	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)		ALS Environ
AA1700481	**E008-GRAB-WA-061317**			**SLP - East 008**		**EGRAB_**
NO FLOW	PH 8:50	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	SETTLE_SOL 4C	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)		ALS Environ
	FLOW	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	FOAM_STAT	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)		Laboratory
AA1700493	**E010-GRAB-WA-062017**			**SLP - East 010**		**EGRAB_**
2669 gpd	FLOW 8:20	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	FOAM_STAT 4C	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
6.98	PH	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		Laboratory
	SETTLE_SOL	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)		ALS Environ

Not sampled/analyzed. Flume requires maintenance (cleaning) will ~~Sample~~ on Thursday (re-log)

Lc : 6/12/2017 4:47:48 AM

SPDES CheckList for Sampling

Att 6 COC # ALC12347
Attachment 6

ALCOA Massena Operations
Chemical Laboratory

AA1700473	**E001-24HR-WA-061317**			**SLP - East 001**	**E24HR_**	
✓	ALUMINUM	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ	
✓	FLUORIDE 9:25	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ	
3°	ISCO_TEMP	SMPL	☐hold	WEEK=(1-5) DAY=(TU)TIME=(4:00)	Laboratory	
✓	PAH_610 - 4C	MS	☐hold	DAY=(S=1Jun2004,F=28)TIME=(4:00)	ALS Environ	
✓	PAH_610 Low Flow	SMPL	☑hold	DAY=(S=1Jun2004,F=14)TIME=(4:00)	ALS Environ	
✓	TDS Redone!	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)	ALS Environ	
✓	TSS	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ	
✓	FLOW 0-5gpm LK	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	SULFATE	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)	ALS Environ	
AA1700475	**E001-GRAB-WA-061317**			**SLP - East 001**	**EGRAB_**	
✓	FILTBYP001	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	OIL_GREASE 9:25	MS	☐hold	DAY=(S=1Jun2004,F=28)TIME=(4:00)	ALS Environ	
✓	OIL_GREASE 4C	SMPL	☑hold	DAY=(S=1Jun2004,F=14)TIME=(4:00)	ALS Environ	
✓	PCB_608	MS	☐hold	DAY=(S=5Nov2013,F=28)TIME=(4:00)	Pace Labs /	
✓	PCB_608 Low Flow.	SMPL	☑hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)	Pace Labs /	
6.63	FLOW	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	PH Redone.	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
20.1	SIGN_STAT LK	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	TEMPER	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	FOAM_STAT	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
✓	CYANIDE_TO	SMPL	☐hold	DAY=(S=5Nov2013,F=14)TIME=(4:00)	ALS Environ	
✓	CYANIDE_TO	MS	☐hold	DAY=(S=5Nov2013,F=28)TIME=(4:00)	ALS Environ	
	CYANIDE_TO	SD	☐hold	DAY=(S=5Nov2013,F=28)TIME=(4:00)	ALS Environ	
AA1700476	**E001SANDF-GRAB-WA-061317**			**SLP 001 Sand Filter**	**EGRAB_**	
7.8	PH 8:10 LK	SMPL	☐hold	WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory	
AA1700477	**E003INF-GRAB-WA-061317**			**SLP - East 003 DMFI**	**EGRAB_**	
✓	CYANIDE_TO 8:50 4C	SMPL	☐hold	DAY=(TU) TIME=(4:00)	ALS Environ	
AA1700478	**E003PAE-GRAB-WA-061317**			**SLP - East 003 PAE**	**EGRAB_**	
✓	CYANIDE_TO 8:50 LK	SMPL	☐hold	DAY=(TU) TIME=(4:00)	ALS Environ	
AA1700474	**E003SAE-24HR-WA-061317**			**SLP - East 003 SAE**	**E24HR_**	
✓	TSS 8:50	SMPL	☐hold	DAY=(S=1Jun2004,F=14)TIME=(4:00)	ALS Environ	
3°	ISCO_TEMP 4C	SMPL	☐hold	DAY=(S=1Jun2004,F=14)TIME=(4:00)	Laboratory	
✓	FLOW	SMPL	☐hold	DAY=(S=1Jun2004,F=14)TIME=(4:00)	Laboratory	

Cl Meter 1 LK
Report: SN 16/09780 6-13-17

Generated At: 6/12/2017 10:29 AM

pH Meter 1 LK
SN K 08974 6-13-17

Login Date: 8/28/2017 4:07:12 AM

SPDES CheckList for Sampling

COC # ALC12400

AH: 7

ALCOA Massena Operations
Chemical Laboratory

AA1700722	**E001-24HR-WA-082917**				**SLP - East 001**	**E24HR_**
✓	ALUMINUM 8:00	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ
✓	FLUORIDE UC	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ
2.5°	ISCO_TEMP	SMPL	☐hold		WEEK=(1-5) DAY=(TU)TIME=(4:00)	Laboratory
✓	TSS	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	ALS Environ
✓	FLOW	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
AA1700723	**E001-GRAB-WA-082917**				**SLP - East 001**	**EGRAB_**
✓	FILTBYP001	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
✓	FLOW 8:00	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
6.88	PH UC	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
✓	SIGN_STAT	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
19.4	TEMPER	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
NO FOAM ✓	FOAM_STAT	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
AA1700724	**E001SANDF-GRAB-WA-082917**				**SLP 001 Sand Filter**	**EGRAB_**
7.66	PH 7:55 UC	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
AA1700725	**E003INF-GRAB-WA-082917**				**SLP - East 003 DMFI**	**EGRAB_**
✓	CYANIDE_TO 8:35 UC	SMPL	☐hold		DAY=(TU) TIME=(4:00)	ALS Environ
AA1700726	**E003PAE-GRAB-WA-082917**				**SLP - East 003 PAE**	**EGRAB_**
✓	PCB_608 8:35	SMPL	☐hold		WEEK=(1,3,5) DAY=(TU) TIME=(4:00)	Pace Labs /
✓	TSS UC	SMPL	☐hold		WEEK=(1,3,5) DAY=(TU) TIME=(4:00)	ALS Environ
✓	CYANIDE_TO	SMPL	☐hold		DAY=(TU) TIME=(4:00)	ALS Environ
AA1700727	**E003SAE-GRAB-WA-082917**				**SLP - East 003 SAE**	**EGRAB_**
✓	PCB_608 8:35	SMPL	☑hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Pace Labs /
6.92	PH UC	SMPL	☐hold		WEEK=(1-5) DAY=(TU,TH) TIME=(4:00)	Laboratory
<0.10	RES_CL2	SMPL	☐hold		WEEK=(1-5) DAY=(TU,TH) TIME=(4:00)	Laboratory
✓	SIGN_STAT	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
✓	GAUGE_STAT	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
✓	FLOW	SMPL	☐hold		WEEK=(1-5) DAY=(TU,TH) TIME=(4:00)	Laboratory
AA1700728	**E005-GRAB-WA-082917**				**SLP - East 005**	**EGRAB_**
NO FLOW	FLOW 7:50	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory
	PH UC	SMPL	☐hold		WEEK=(1-5) DAY=(TU) TIME=(4:00)	Laboratory

pH Meter 1 SN K08974 UC 8-29-17

Cl Meter 1 SN 16/09780 8-29-17 UC

Attachment 8

Form WTCFX (2/02)

NYSDEC - Division of Water

Water Treatment Chemical (WTC) Usage Notification Requirements for SPDES Permittees

Instructions Page

Note: All requested information must be supplied. Incomplete submissions will not be reviewed.

Applicability

New or increased use of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use. The DEC will review that submittal and determine if a formal SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. **The majority of WTC authorizations do not require formal SPDES permit modification.** Notification requirements are summarized below. WTCs which are used in closed systems and cannot be discharged or those which are discharged to municipal STP do not require DEC review. Examples of WTCs include, biocides, coagulants, conditioners, corrosion inhibitors, defoamers, flocculants, scale inhibitors, sequestrants, and settling aids. DEC staff may also direct you to use this form for review and authorization of substances, other than WTCs, which could be present in wastewater, e.g. process chemicals.

Notification Requirements and Instructions

For **each** new or increased use of a WTC, please **complete items 1a, and 2 - 14 on the attached 3 page form, entitled WTC Usage Notification Requirements for SPDES Permittees.** *Alternatively*, the permittee may, at a minimum, complete items 1a, 2 - 9 and 14 then forward the form to the WTC manufacturer who must then complete the remaining items (10 - 13) and items 1b and 15. The manufacturer must then send the completed form directly to the permit writer. This alternative method may be necessary because the WTC manufacturer may be reluctant to reveal trade secret product formulations to the permittee.[1] **Fax or Mail the completed form to:**

Permit writer: Benjamin Girtain Plowe	Telephone: (518) 402-8103	Fax: (518) 402-9029
Address: NYSDEC, Bureau of Water Permits, 4th Floor, 625 Broadway, Albany, NY 12233-3505		

Outfall WTC Concentration - *In general*, when completing item 7b, the average mg/l should be determined by dividing the average dosage in 6a by the average flow in 7a and then dividing by 8.34; the maximum mg/l should be determined by dividing the maximum dosage in 6a by the average flow in 7a and then dividing by 8.34. *However*, for blowdowns which are highly intermittent or are not tributary to a treatment system or some form of equalization, it may be appropriate to factor in the information in item 8 when completing item 7b.

Toxicity Information - When completing item 13, please ensure that the tests were conducted in accordance with the EPA Toxicity Manual and that the results are for the appropriate receiving water (i.e. fresh water or salt water).[2] In general, submissions which do not include any toxicity information will not be authorized. Submissions containing incomplete toxicity information will be reviewed using conservative safety factors which may prevent authorization or result in the permit being modified to include routine whole effluent toxicity testing or other monitoring.

Phosphorus - The permittee must demonstrate that the use and discharge of any WTCs containing phosphorus, tributary to the Great Lakes Basin or other ponded waters, is necessary and that no acceptable alternatives exist. Please note that in some cases your permit may require modification to regulate phosphorus.

After reviewing the submission, **the permit writer will complete items 16 and 17** and fax or mail a copy of the completed form to the person identified in item 2.c and, if appropriate, to the facility inspector.

Common Reasons Which Prevent Letter Authorization of a WTC

- Submission of incomplete or inaccurate information.
- High WTC toxicity compared to available receiving stream dilution or other predicted water quality contravention.
- Department review indicates that a SPDES permit modification is necessary.

Footnotes:

(1) If requested, the Department will restrict access to trade secret information to the extent authorized by law.

(2) **Submission of both acute (48 or 96 hour LC50 or EC50) and chronic (NOEC) test results for at least one vertebrate and one invertebrate species are required.** Refer to the following three manuals: EPA/600/4-90/027F (1993); EPA/600/4-91/002 (1994); EPA/600/4-91/003 (1994); or their replacements.

Form WTCFX (2/02)

NYSDEC - Division of Water

Water Treatment Chemical (WTC) Usage Notification Requirements for SPDES Permittees

Note: All requested information must be supplied. Incomplete submissions will not be reviewed.

Permittee completes items 1a and 2 - 14. Alternatively, the permittee may complete items 1a, 2 - 9 and 14 if the WTC manufacturer completes items 1b, 10 - 13 and 15. See instructions page.

1.a. Date Signed by Permittee - 2/7/14	1.b. Date Signed by WTC Manufacturer - 09/26/13
2.a. Permittee Name - Alcoa Inc. - Massena Operations	2.b. SPDES No. - NY 0000132
2.c. Contact Name - Timothy P. Long	
3.a. WTC Name - Nalco CL-50	
3.b. WTC Manufacturer - Nalco Company	
4. WTC Function - Corrosion Inhibitor	
5. Affected Outfall(s) - 001	
6.a. WTC Daily Dosage: average lbs/day = 15	, maximum lbs/day = 35
6.b. Dosage Frequency: minutes/day = 60	, days/week = 7
7.a. Outfall Flow Rate: average MGD = 0.5	, maximum MGD = 2.5
7.b. Outfall WTC Concentration: average mg/l = 3.6	, maximum mg/l = 8.4
8.a. System Blowdown Flow Rate: average gpm = 34	, maximum gpm = 68
8.b. System Blowdown Frequency: minutes/day = 1440	, days/week = 7
9. List measures in place to ensure that excessive levels of WTC are not used and subsequently discharged - Water is treated prior to discharge.	

10.a. WTC Composition - Ingredients/Impurities (note: ingredients/impurities must total to 100%)	10.b. %	10.c. CAS#	10.d. Outfall Concentration
Sodium Phosphate	32.54	68915-31-1	1.17144 mg/l
Sodium Tripolyphosphate	6.19	68915-31-1	0.22284 mg/l
Water	61.27	7732-18-5	2.20572 mg/l
			mg/l
			mg/l
			mg/l
			mg/l

10.e. Intermediate/Final Degradation Products - Neglible

Form WTCFX (2/02)

NYSDEC - Division of Water

WTC Usage Notification Requirements for SPDES Permittees

1.a. Date Signed by Permittee - 2/7/2014	1.b. Date Signed by WTC Manufacturer - 09/26/13
2.b. SPDES No. - NY 0000132	3.a. WTC Name - Nalco CL-50
11. WTC BOD and COD (lb/lb) - Neglible	
12.a. Is WTC a NYS registered biocide? No	12.b. Registration Number -

13. WTC Toxicity Info (most sensitive species) - Attach description of endpoint for each EC50 and LOEC.

13.a. Vertebrate Species	LC50	EC50	NOEC	LOEC	Other -
Fathead Minnow	1,162 mg/l	mg/l	mg/l	mg/l	
13.b. Vertebrate Species	LC50	EC50	NOEC	LOEC	Other -
	mg/l	mg/l	mg/l	mg/l	
13.c. Invertebrate Species	LC50	EC50	NOEC	LOEC	Other -
Daphnia Magna	>1,000 mg/l	910 mg/l	mg/l	mg/l	
13.d. Invertebrate Species	LC50	EC50	NOEC	LOEC	Other -
	mg/l	mg/l	mg/l	mg/l	
13.e. Species	LC50	EC50	NOEC	LOEC	Other -
	mg/l	mg/l	mg/l	mg/l	

14. Permittee Certification - I certify under penalty of law that this notification and all attachments are, to the best of my knowledge and belief, true, accurate and complete. The generic WTC usage requirements noted below will be adhered to.

PRINT NAME - Robert J Lenney	SIGNATURE - Robert J Lenney
TITLE/COMPANY - Interim Location Manager	
TELEPHONE - (315) 764-6112	FAX - (315) 764-6440

15. WTC Manufacturer Certification - I certify under penalty of law that this notification and all attachments are, to the best of my knowledge and belief, true, accurate and complete.

PRINT NAME - Chris Tooley	SIGNATURE - Chris Tooley
TITLE/COMPANY - District Representative / Nalco Company	
TELEPHONE - (315) 252-1188	FAX - (315) 252-6100

Form WTCFX (2/03)

NYSDEC - Division of Water

WTC Usage Notification Requirements for SPDES Permittees

1.a. Date Signed by Permittee - 2/7/14	1.b. Date Signed by WTC Manufacturer - 09/26/13
2.b. SPDES No. - NY 0000132	2.c. Contact Name - Timothy P. Long
3.a., WTC Name - Nalco CL-50	6.a. Avg/Max Daily Dosage = 15 / 35 lbs/day

Generic WTC Usage Requirements

A. WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.

B. The discharge shall not cause or contribute to a violation of water quality or an exceedance of AWQC.

C. **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 3 years. This period may be extended by request of the DEC.

D. **The permittee shall provide an annual report**, attached to the December DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

Items 16 - 17 must be completed by NYSDEC permit writer.

16. Review Decision (check the appropriate box). *Fax or mail a copy of the completed form to the person identified in item 2.c and, if appropriate, to the facility inspector.*

☒ The proposed WTC usage may proceed as proposed without permit modification subject to the conditions noted above.

☐ The proposed WTC usage may not proceed for one of the following three reasons:

- ☐ As noted below, the information provided is insufficient to complete our review.
- ☐ As noted below, the SPDES permit must first be modified to add new requirements.
- ☐ As noted below, the proposed use is prohibited.

17. Permit Writer Information:

PRINT NAME - Benjamin Girtain Plowe	SIGNATURE - Benjamin Girtain Plowe
TITLE - Environmental Engineer	DATE - 2/7/2014
ADDRESS - NYSDEC, Bureau of Water Permits, 4th Floor, 625 Broadway, Albany, NY 12233-3505	
TELEPHONE - (518) 402-8103	FAX - (518) 402-9029

ATTACHMENT 9